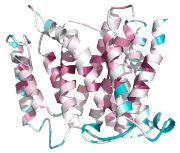
Fast Agarose DNA Gel
Boron Buffer
Protocol



INTRODUCTION. This gel is different than the typical or standard DNA agarose gel. Using a different buffer system, you can run the gel at a much higher voltage without generating heat and melting the gel.

PREPARATION OF SODIUM BORATE BUFFER (SB)

Prepare a 1 M solution of Boric Acid (6.1 g/100 ml) in DI water. This may not go into solution easily or at all use as a slurry to titrate your soln.

Carefully add 1.0 ml of 10 M NaOH to 500 ml water with stirring.

Adjust the pH of the NaOH to 8.5 using the 1M Boric Acid in a dropwise fashion.

Store at room temp.

Use this buffer in place of TBE or TAE.

Don't forget to use Ethedium Bromide, SyproOrange (or SyproSafe) dye to visualize your DNA.

Ref: BioTechniques 36:214-216 (February 2004) *Sodium boric acid: a Tris-free, cooler conductive medium for DNA electrophoresis* Jonathan R. Brody and Scott E. Kern The Johns Hopkins University School of Medicine, Baltimore, MD, USA